SHROPSHIRE EDUCATION COMMITTEE

School Health Service

REPORT

OF THE

Principal School Medical Officer

1966

COUNTY HEALTH DEPARTMENT, SHIREHALL, SHREWSBURY

MAY, 1967

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To The Chairman and Members of the Shropshire Education Committee

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Mr. Chairman, Ladies and Gentlemen,

I have the honour to present the Annual Report of the Principal School Medical Officer for the year 1966.

The work which is detailed in this report has been largely carried out under the supervision of Dr. T. S. Hall, who left the employ of the County Council on 6th November, 1966. I would like to take this opportunity to pay tribute to Dr. Hall whose wise guidance of the School Health Service during his 13 years as Principal School Medical Officer has done so much to make it an efficient and effective service for the well-being of the school population which it serves.

The work of the School Medical Officer is changing; it is broadening in scope. We are concerned with every aspect of the health and welfare of the school child. There is also an increasing emphasis on the needs of the handicapped child and I would recommend for your close perusal the section of the report commencing on page 12 on this subject.

You will see there that the need for early ascertainment is stressed. This is vital in order that any special help, whether it be educational, medical or social, can be provided as indicated. This is particularly the case in children who are born with some impairment of hearing. It is now known that these children will always have some useful residual hearing and the Department of Education and Science now refer to them as Partially Hearing and not as previously Partially Deaf. This residual hearing is the keystone on which the auditory training and speech development of the child are based. The training of these children must commence as early as possible, as the amount of language which the child develops is one of the main features determining its educational placement at school age. The report of the Audiologist on pages 23 to 28, will demonstrate that the audiological services in the County have been effectively developed, and gives an indication of the varied activities carried out in this field of work.

At the end of the section dealing with handicapped pupils is an account of the home visitation that is undertaken by our School Medical Officers. They are expected to pay special attention to these children either in school or by home visiting. One of the most important services we can provide for handicapped pupils and their families is that of counselling. Problems are the rule rather than the exception at all stages in the development of these children. Parents may be

concerned with specific points in relation to the particular disability, or require general advice on the many points which can trouble these families. The ready availability of skilled professional advice is a very real contribution in the help which we give these parents.

I would also like to mention the section of this report which deals with tuberculosis in school children. For eleven years B.C.G. vaccination has been made available to school children aged 13 years and upwards. To-day, tuberculosis in common with other serious conditions such as rheumatic fever and poliomyelitis, has declined greatly in prevalence. Whilst this has been due partly to a decrease in the natural virulence of the organisms concerned there is no doubt that the policy of skin testing and vaccination which has been actively pursued has made a substantial contribution to the drop in the incidence of this disease amongst our school population.

The number of children aged 13 and upwards who are found to be negative on skin testing obviously correlates with the level of tuberculosis infection existing in the community, and the higher the percentage of negative children the less community infection there is. It is interesting to note that in Shropshire the percentage of positive children as determined by skin testing was

11.62%	(England and Wales 16%)	in 1962
10.06%	(„ „ „ 14.9%)	in 1963
8.17%	(„ „ „ 12.6%)	in 1964
7.27%	(„ „ „ 13.7%)	in 1965
6.93%	(figures for England and Wales not yet available)	in 1966.

It will be seen from these figures that the number of children in Shropshire who have come into contact with infection are substantially below the rates for England and Wales. It is difficult to be certain why this should be so; one of the factors may be that we have not a great immigrant population in the County and it is well-known that such people have a high percentage of positive children in their families. But whatever the causes of this, it is a favourable finding.

Turning to environmental health matters, it is also worth while noting the section on page 34 on the staff of the school canteens and the sanitary circumstances of the schools; our concern is with the total school environment of the school child and despite the great interest in the more personal medical services offered, it should be remembered that the observation and checking of the environmental health aspect of school life does not diminish in importance.

From the section of the report devoted to Health Education, pages 32 and 33, it will be seen that demands for illustrated talks on all aspects of health show no sign of abating.

The "Learning to Live" programme is more popular than ever. Health Education is one of the expanding aspects of current public health and school health work. I am certain that this part of our work can usefully and effectively enable our school children to face adult life with confidence.

There are many other interesting points in this report and it is difficult to pick out those of particular merit, as they all have an important bearing on the health of the school population.

Having just taken up office as the Principal School Medical Officer, may I assure the Committee of my great interest in all matters pertaining to the School Health Service. I look forward to continuing the already close co-operation that exists between the Education and Health Departments.

I would like to thank all those who made contributions to this report. I would particularly mention Dr. Crowley, the Department's Senior Medical Officer, who is responsible for the day-to-day administration of the service.

I have the honour to be

Your obedient Servant,

PHILIP C. MOORE

PRINCIPAL SCHOOL MEDICAL OFFICER.

County Health Department
The Shirehall
Abbey Foregate
SHREWSBURY
(Telephone No. Shrewsbury 52211)

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MEDICAL, DENTAL AND ANCILLARY STAFF

Principal School Medical Officer:

THOMAS S. HALL, M.B.E., T.D., M.D., B.Ch., B.S.c, D.Obst.R.C.O.G., D.P.H.
(Retired 6th November, 1966)
PHILIP C. MOORE, M.B., B.Ch., B.Sc., D.Obst. R.C.O.G., D.P.H. (Appointed 7th November, 1966)

Deputy Principal School Medical Officer:

*WILLIAM HALL, M.B., Ch.B., M.R.C.S., L.R.C.P., D.Obst.R.C.O.G., D.P.H.

Senior Medical Officer:

NORA V. CROWLEY, M.B., B.Ch., B.A.O., D.C.H., L.M., D.P.H.

School Medical Officers:

KATHLEEN M. BALL, M.B., B.Ch., B.A.O., D.P.H. (part-time)
AGNES D. BARKER, M.B., Ch.B. (part-time)
JOHN BURROWES, M.B., B.Ch., B.A.O., D.P.H. (Appointed 9th May, 1966)
*ELIZABETH CAPPER, M.B. Ch.B., D.P.H.
ELIZABETH J. CARTER, M.B., B.S., (part-time) (Appointed 6th October, 1966)
*KENNETH CARTWRIGHT, M.B., Ch.B., D.P.H.
SHEILA M. G. CROSLAND, M.B., B.S. (part-time) (Appointed 3rd October, 1966)
JOAN B. DEACON, M.R.C.S., L.R.C.P. (part-time)
MOIRA FORDYCE, M.B., Ch.B. (part-time) (Appointed 10th March, 1966) (Resigned 15th June, 1966)
ISABELLA L. H. HEWLETT, M.D., B.S., M.R.C.P., M.R.C.S., (part-time)
KENNETH E. JONES, M.B., Ch.B., D.P.H.
FLORA MACDONALD, M.B., B.S., D.P.H. (Resigned full-time 30th September, 1966) (Appointed part-time 1st October, 1966)
*ALISTAIR COLIN MACKENZIE, M.D., Ch.B., D.P.H.
LUDWIK Z. MARCZEWSKI, Medical Diploma (Lwow, Poland) (Resigned 11th April, 1966)
*DOUGLAS R. MCCAULLY, M.D., B.A., B.Ch., B.A.O., D.P.H.
*WILLIAM MOORE, M.B., B.Ch., B.A.O., D.R.C.O.G., D.T.M.H., D.P.H.
MURIEL NANKIVELL, M.B., Ch.B. (part-time) (Appointed 8th December, 1966)
ALICE N. O'BRIEN, M.B., Ch.B., D.P.H.
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*MARGARET H. F. TURNBULL, M.B., Ch.B., D.P.H.
ELIZABETH A. WELTON, M.B., Ch.B. (part-time) (Appointed 24th June, 1966)

Principal Dental Officer:

CHARLES D. CLARKE, L.D.S.

School Dental Officers:

Whole-time:

GEOFFREY G. FIELD, L.D.S.
NOEL GLEAVE, L.D.S.
PETER HOWE, L.D.S.
GEORGE B. WESTWATER, L.D.S.

Part-time:

PATRICIA R. ABBOTT, B.D.S.
HARRY B. KIDNER, L.D.S. (Resigned 30th November, 1966)
ALEXANDER J. LAVELLE, L.D.S., R.F.P.S. (Appointed 2nd November, 1966)
REGINALD H. N. OSMOND, L.D.S.
JEAN W. PATTISON, L.D.S.

*Also District Medical Officer of Health

Consultant Orthodontists (part-time)

BRIAN T. BROADBENT, F.D.S.
MICHAEL F. SCOTT, L.D.S.

Anaesthetists (part-time):

MICHAEL ELDER, M.B., B.Ch. (Appointed 14th April, 1966)
HENRY A. JOHNSON, M.B., Ch.B., M.R.C.S., L.R.C.P.
JAMES J. POLLAND, L.R.C.P., L.R.C.S., L.R.F.P.S.
FREDA WHITNEY, M.B., Ch.B. (Appointed 4th July, 1966)

Dental Technicians:

NORMAN J. RUSHWORTH
CLIVE EVERINGHAM

Apprentice Dental Technician:

MARK MASON (Resigned 31st August, 1966)
MARK J. DAVIES (Appointed 1st September, 1966)

Dental Auxiliaries:

PAMELA A. UPTON (Resigned 31st December, 1966)
JUDITH C. POLLITT (Appointed 1st September, 1966)

Dental Hygienists:

MARY HATFIELD (Resigned 28th February, 1966)
NANCY SMITH

Consultant Children's Psychiatrist (part-time):

DAVID R. BENADY, M.B., B.S., M.R.C.S., L.R.C.P., D.C.H., D.P.M.

Educational Psychologists:

JOHN L. GREEN, B.A.
DAVID R. JONES, B.Sc.(Hons.), Teacher's Diploma
MARGARET THOMAS, B.A. (part-time)

Senior Psychiatric Social Worker:

BRIDGET C. DOWNER, Diploma in Social Studies (London), Certificate in Psychiatric Social Work (Edinburgh), (Appointed 1st November, 1966)

Child Guidance Social Workers:

BETTY BOYCOTT, Social Science Diploma (London)
RITA M. GARRARD, Social Science Diploma (London)

Audiologist/Senior Speech Therapist:

EDWARD PAULETT, L.C.S.T., Dip.Aud.

Audiometrician:

JOAN ROBINSON (Appointed 1st July, 1966)

Speech Therapists:

ELIZABETH M. CASWELL, L.C.S.T. (Appointed 1st September, 1966)
CYNTHIA M. MAUGHAN, L.C.S.T. (part-time)
MARJORY M. SHELDON, L.C.S.T. (part-time) (Appointed 9th May, 1966)
CYNTHIA D. WAGG, L.C.S.T.

Physiotherapists:

CLARICE D. E. DUFFY (part-time)
ANNE GUY (part-time) (Appointed 7th December, 1966)
PAMELA NEELY (part-time) (Resigned 17th June, 1966)

Consultant Chest Physician (part-time):

ARTHUR T. M. MYRES, B.A., B.M., B.Ch., M.R.C.P. M.R.C.S., L.R.C.P.

Report for the year 1966

GENERAL

The area covered by the Local Education Authority comprises 861,800 acres; and in June, 1966, the home population, as estimated by the Registrar-General, was 321,720, an increase of 4,450 compared with 1965.

The number of pupils on the school register in 1966 was 50,838, compared with 49,697 in the previous year—an increase of 1,141.

At the end of the year, there were in the County of Salop, including the Borough of Shrewsbury, the following schools:

	Schools	*Departments*	*Pupils on Register*
Non-Residential:			
Nursery Special School	1	1	36
Nursery	3	3	120
Primary (County)	81	81	15,563
Primary (Voluntary)	154	154	14,799
Secondary Modern (County)	25	25	10,458
Secondary Modern (Voluntary)	2	2	903
Secondary Grammar (County)	8	8	3,911
Secondary Grammar (Voluntary)	5	5	1,772
Comprehensive (County)	4	4	2,901
Residential:			
Secondary	1	1	127
Special	3	3	184
Hospital	1	1	64
TOTAL	288	288	50,838

The table below shows the establishment of principal posts in the School Health Service and the staffing position at 31st December, 1966:

	Establishment	*Staff at 31st Dec., 1966*
Principal School Medical Officer	1	1
Deputy Principal School Medical Officer	1	1
Senior Medical Officer	1	1
Administrative Medical Officer	1	1
School Medical Officers—whole-time	12	3
—part-time		18
Principal School Dental Officer	1	1
Dental Officers—whole-time	11	4
—part-time		4
Dental Auxiliaries	4	2
Orthodontists—whole-time	1	—
—part-time		2
Dental Hygienist	2	1
Dental Technician	2	2
Apprentice Dental Technician	1	1
Senior Dental Surgery Assistant	1	1
Dental Surgery Assistants—whole-time	12	10
—part-time		3
Audiologist/Senior Speech Therapist	1	1
Speech Therapist—whole-time	5	2
—part-time		1
Physiotherapists—whole-time	2	—
—part-time		2
Audiometrician	1	1

Inclusive of the Principal School Medical Officer and his Deputy, the total medical staff undertaking all School Health Service duties, including administrative work, on 31st December, 1966, was equivalent to approximately $8\frac{1}{3}$ whole-time officers.

The nursing staff employed in the School Health Service at the end of 1966 was 4 whole-time and 9 part-time School Nurses, while part-time service was also rendered by 24 full-time Health Visitors and 26 District Nurse-Midwives who were employed by the Local Health Authority.

MEDICAL INSPECTION AND TREATMENT

Routine Medical Inspections.—Section 48 of the Education Act, 1944, requires the Local Education Authority to provide for the medical inspection, at appropriate intervals, of all pupils in attendance at maintained schools, including County Colleges. This Section also requires parents to submit their children for such inspection when so requested by an authorised officer of the Authority.

Under the National Health Service Act, 1946, children can receive treatment from medical practitioners who have contracted with the Local Executive Council to provide general medical services; and children found on examination by a School Medical Officer to be suffering from any defect are, save for certain agreed conditions, referred to their own doctors. Such pupils are followed up by the School Nurses and any necessary specialist advice or treatment is arranged either through the family doctor or directly with one or other of the hospitals in the area of the Birmingham Regional Hospital Board, as listed on page 12.

Local Education Authorities have power to modify medical inspection procedure by discontinuing certain routine examinations and arranging instead for the examination of children selected not by age but by other criteria, such as lack of physical or educational progress, high rate of absenteeism or from lists drawn up by the Head Teacher, School Medical Officer and School Nurse in consultation.

In this County the following procedure obtains:

(i) *Routine Inspections:*

Routine medical examinations are carried out of pupils in three age groups (*a*) Entrants—on admission to school, usually 5 years, (*b*) Intermediates—at 11 years, and (*c*) Leavers—at approximately 14 years.

School Nurses are asked to visit each school prior to the inspection to test the vision of all children listed for examination.

Routine examination of the 8 year olds has been dispensed with but all pupils noted for re-examination on account of a defect and any referred for special examination by the Head of the school are seen by the examining Medical Officer once a year. Heads are encouraged to refer children in this age group for special examination because of the six years interval between the "Entrant" and "Intermediate" routine examinations.

There were approximately 50,000 pupils on the School Register in 1966, with about one-third due for routine examination. The number having routine examination was, in fact, 12,096. In an area the numbers examined vary with the numbers of the Medical Officers employed, and the other demands made upon their time. In several areas there was difficulty in replacing immediately Medical Officers who resigned during 1966. Vaccinations, immunisations, health education talks and an increasing amount of audiology, which is a very valuable service, reduce time available to Medical Officers for routine medical inspection purposes.

(ii) *Special Inspections and Re-Examinations:*

In addition to the inspection of pupils in the three age groups mentioned in Section (i) above, special examinations are made of pupils referred on account of defects by Head Teachers or School Nurses, including children who are in need of special educational treatment. Annual re-examinations are also made of children found to have a defect requiring observation.

The numbers of pupils examined as specials and re-examinations in 1966 were 1,603 and 10,535 respectively, making a total of 12,138 examinations.

Co-operation and Co-ordination—Good co-operation exists between School Medical Officers, School Nurses and Family Doctors and this results in a better service for the children. Head teachers are very co-operative in all aspects of School Health Service work and they are particularly helpful at annual routine school medical inspections which sometimes cause inconvenience to the normal teaching programme.

There is close liaison with N.S.P.C.C. Inspectors and Education Welfare Officers in helping children from unsatisfactory homes, or securing attendance of pupils for special examinations.

Appreciation is acknowledged of the help given by the Shrewsbury Branch of the British Red Cross Society in providing escorts to accompany handicapped children travelling to and from Convalescent Homes.

Treatment of Eye Conditions.—All children in the five year old group are tested with special material shortly after entry to school in order that visual defects may be detected and rectified as formal education begins. Children found to have visual defects, even as slight as 6/9 in one or both eyes without spectacles, are "followed up" at three monthly intervals by the School Nurse and if the vision subsequently deteriorates they are referred to the School Medical Officer who will if necessary, refer the patient to an Ophthalmic Consultant. All pupils suffering from defective vision are in any case seen by the School Medical Officer as annual re-examinations as mentioned in section (ii) above. Children thought to be suffering from squint are being referred at a much earlier age with correspondingly more satisfactory results after treatment. Colour vision is tested at the age of 11 years by means of special material.

During the year 4,874 children were dealt with for defective vision or other eye conditions, 4,525 being referred to Ophthalmic Medical Practitioners or Ophthalmic Opticians, and 349 being treated by Ophthalmic Consultants at the Shrewsbury Eye, Ear and Throat Hospital.

Of the 13,699 pupils examined by School Medical Officers 43 were noted as having had squint operations during the year, and 65 to be receiving orthoptic exercises; 59 other pupils were referred for specialist treatment on account of squint; and 275 were noted for observation for the same condition.

Defects of Ear, Nose and Throat.—These conditions have, with respiratory illnesses, changed in character and incidence over the last twenty years and less surgical treatment is needed in this field.

Of the 13,699 children medically examined by the School Medical Officers, 44 were referred to the Ear, Nose and Throat Specialists during 1966, and another 1,209 were noted for observation on account of tonsil and adenoid conditions.

Operations for the removal of tonsils and adenoids were performed on 432 Shropshire school children in hospitals of Nos. 15 and 16 Hospital Management Committee Groups. This number includes children attending private and independent schools not maintained by the Local Education Authority and who are, therefore, outside the scope of the School Health Service.

Orthopaedic Defects.—There are seven Orthopaedic After-Care Clinics in Shropshire attended by an Orthopaedic Specialist and an Orthopaedic Nurse.

During 1966, of 13,699 pupils medically examined by the School Medical Officers, the following were noted as suffering from varying degrees of orthopaedic defect and referred to the Orthopaedic Surgeon where treatment was considered necessary:

	Treatment	*Observation*
Posture	2	80
Feet	37	513
Other Conditions	27	355

Defects of posture or feet account for an appreciable number of orthopaedic defects and during the year 22 pupils were found by School Medical Officers to be receiving corrective exercises by Physical Education Specialists in schools.

During Health Education talks and at school medical inspections emphasis is placed upon the need for suitable footwear. Parent guidance is most essential in this field.

Diseases of the Skin.—The numbers of Shropshire school children known to have been treated during 1966 for diseases of the skin (other than of the feet) are indicated below:

Ringworm—scalp	2
—body	11
Scabies	6
Impetigo	18
Other skin diseases ..	42
TOTAL ..	79

Care of the Feet.—During 1966, the School Medical Officers carried out 30 special foot inspections involving 11,288 pupils and 374 cases of verruca (137 already having treatment and 237 which had not been diagnosed) were discovered. In addition, School Medical Officers found 620 cases of suspected Athlete's Foot (53 under treatment and 567 undiagnosed) together with 140 other foot conditions.

Head teachers are asked to report any cases of suspected Verruca occurring amongst pupils in their schools in order that School Nurses may examine these pupils and where necessary refer them to School Medical Officers at the Child Welfare Centres.

Children found on inspection to have Verruca are excluded from swimming, showers and participation in bare foot physical education until the condition has been treated and cured. Cases discovered are referred to the family doctor concerned and kept under observation by the School Nurse who also ensures that treatment is carried out.

Particular attention is paid in schools to the most likely spots for the spread of infection, e.g. gymnasium floors, swimming baths, etc., and these are disinfected.

Treatment of Minor Ailments.—Since the introduction of the National Health Service Act in 1948, minor ailment clinics do not play a large part in school work, because most of the conditions which could be seen at such clinics are dealt with by the family doctor. Some minor ailment clinic facilities are in fact still offered at child welfare clinics.

At the "School Nurse" session and the "School Doctor" sessions at Bridgnorth, Market Drayton, Oswestry and Wellington Welfare Centres, 65 children made 100 attendances in 1966. Examinations by the School Doctor totalled 20 and 17 of the children were referred to their own doctor.

Nutrition.—General improvement in the satisfaction of material requirements has reduced physical ailments to a minimum and in the post war years there has been a steady improvement in the physical standard and nutrition of children in maintained schools. The nutrition figure which attained 100% in 1961 has since remained at that level. In a few cases satisfactory nutrition has been followed by obesity and School Medical Officers at medical inspections advise children and parents about diet.

Convalescence.—On the recommendation of School Medical Officers, 10 pupils were provided with free holiday convalescence during 1966. Selected cases were those where rest, good food and fresh air were essential to recovery and generally these children came from poor or problem homes. If a fairly long period of treatment is required, the child is regarded as a delicate pupil and placed in an Open Air School.

Holidays, usually of a few weeks duration, were arranged for the 10 children concerned through the School Health Service and under a scheme quite distinct from the convalescence facilities provided through the National Health Service normally used for adult patients.

Cleanliness Inspections.—School Nurses carry out routine inspections for verminous infestation of pupils in all Primary Schools, follow-up inspections being made of pupils found to have nits or lice. Such inspections in Secondary Modern and Grammar Schools are now arranged only at the request of the Heads.

Following cleanliness inspections in Primary Schools early each term, an Informal Cleansing Notice is issued to the parent of any pupil found to be verminous. Such pupils are re-examined one week later. If still found to be verminous, Formal Cleansing Notices are served on the parents, requiring them to disinfest and to present the children for re-examination by the School Nurse at the end of three days. If at this latter re-examination a pupil is found to be still verminous, a Formal Cleansing Order may be issued from the School Health Office instructing the Nurse to convey the pupil to the nearest School Clinic to be cleansed by her.

During 1966, a total of 101,252 head inspections was carried out by the School Nurses, and of the 38,916 pupils on the registers of schools inspected 1,048 children were found to be verminous, some on more than one occasion. This represented a figure of 2.6 per cent of the school population who were found to be verminous during the year.

It was found necessary during the year to issue 32 Formal Cleansing Notices and 14 Cleansing Orders. No legal proceedings were instituted in this connection during the year.

Infestation is mainly confined to children whose home conditions are unsatisfactory. In such cases School Nurses have the task of dealing with parents and older members of the household, who neglect personal hygiene and consequently re-infest the younger children.

Work of School Nurses.—School Nursing is undertaken by 13 School Nurses (4 whole-time and 9 part-time), 24 Health Visitors and 26 District Nurses (who are estimated to devote about 7 per cent of their time to this work). In addition to visits to schools for head inspections, the School Nurses attend routine medical inspections. Children ascertained by the School Medical Officers to be suffering from defects of any kind are either referred to the family doctor for treatment or noted for observation; and the subsequent follow-up work of the School Nurses, together with the number of days given to routine medical inspections, is indicated in the following table:

Staff	Staff		Medical Inspection days	Treatment Cases				Observation Cases			Totals	
	Number	Whole-time equivalent		Visited	Not Visited	Total	Treated	Visited	Not Visited	Total	Cases	Visits
School Nurses	4	4	118	1,424	188	1,612	1,612	175	51	226	1,838	2,810
Part-time School Nurses	9	3.22	116	896	846	1,742	1,742	364	403	767	2,509	1,735
Health Visitors	24	6.72	226	1,037	641	1,678	1,678	504	479	983	2,661	1,744
District Nurses	26	1.82	66	367	125	492	492	153	123	276	768	629
TOTAL ..	63	15.76	526	3,724	1,800	5,524	5,524	1,196	1,056	2,252	7,776	6,918

Employment of Children.—In accordance with the provisions of Section 59 of the Education Act, 1944, all pupils reported by the Chief Education Officer as being engaged in work outside school hours are examined by a School Medical Officer to ensure that they are not being employed in a manner likely to be prejudicial to health or to render them unfit to obtain the full benefit of education.

After this initial examination, each child is seen annually at routine medical inspection, or at an earlier date if the School Medical Officer recommends such an arrangement.

Only children of 13 years or more are allowed to take up employment, which is restricted by statute and may not exceed two hours on school days. Work before 7 a.m. is prohibited. Employment in a number of occupations connected with hotels, public entertainments, licensed premises, racing tracks, etc., is prohibited and no child may be employed to lift, carry or move anything so heavy as to be likely to cause him injury.

Experience shows that part-time work is in no way harmful to most children; it gives them a sense of responsibility and acts as an introduction to full-time employment.

Of 630 pupils examined during 1966, one was unfit for employment and it was necessary to recommend re-examination in three further cases at intervals ranging from one to nine months.

Medical Inspection of Pupils resident in Boarding Schools and Special Boarding Schools.—Special arrangements are made for the medical examination of children in boarding schools or resident in special boarding schools within the County, as under:

Bridgnorth ..	Apley Park
Ellesmere ..	Petton Hall
Shifnal	Haughton Hall
Wem	Trench Hall

During 1966, School Medical Officers examined 311 pupils in residence, anything relevant to the well-being of the children being passed on to the Head of the school. Every pupil in these residential establishments is on the list of a local Medical Practitioner providing General Medical Services under the National Health Service Act.

Arrangements were also made during the year, at the request of the Robert Jones and Agnes Hunt Orthopaedic Hospital authorities, for the local School Medical Officer to undertake vision tests of 64 pupils attending the Hospital School. These tests are carried out each term and pupils having defective vision are referred to an Ophthalmic Consultant for treatment.

Education of Children in Hospitals.—The Robert Jones and Agnes Hunt Orthopaedic Hospital have a permanent arrangement with the Education Committee for the provision of special educational facilities. At Copthorne Hospital, Shrewsbury, patients recommended for special tuition attend a class regularly at the hospital by a tutor provided by the Education Committee.

In other hospitals in the County, when a child is admitted whose stay is likely to be prolonged, special arrangements are made for individual tuition if the medical condition permits.

SCHOOL CLINICS PROVIDED BY THE LOCAL EDUCATION AUTHORITY

The following is a list of clinic sessions made available by the Local Education Authority at which school children may attend. School doctors' sessions operate concurrently with general child welfare clinics. In addition to the clinics listed, there are two Mobile Dental Units which operate in the north and south of the County respectively. The times at which clinics are held are liable to be modified, but up-to-date information on clinic sessions may be obtained from the Health Department, Shirehall, Shrewsbury, or from the School Medical Officer concerned at local level.

List of School Clinics as at 1st March, 1967

Medical Officer and District	Centre	Frequency of Sessions
Dr. Barker Wem	Wem	Audiology — As required Dental — Two sessions weekly
Dr. Capper Ludlow	Bishop's Castle	Audiology — As required
	Church Stretton	Audiology — As required
	Cleobury Mortimer	Audiology — As required
	Ludlow	Audiology — One-two sessions monthly Child Guidance — Two sessions monthly Dental — Three sessions weekly Ophthalmic — Three sessions monthly
Dr. Cartwright Dawley	Dawley	Audiology — One session monthly Dental — Five sessions weekly Speech Therapy — One session weekly
Dr. Crosland Madeley	Madeley	Audiology — As required Dental — Three sessions weekly Orthopaedic — Two sessions monthly Speech Therapy — One session weekly
Dr. McCaully Market Drayton	Hadley	Audiology — As required School Doctor — One session monthly Speech Therapy — One session weekly
	Hadley Modern School	Audiology — As required Child Guidance — One session monthly Dental — Four sessions weekly School Doctor — One session weekly
	Market Drayton	

Medical Officer and District	Centre	Frequency of Sessions	
Dr. Burrowes Wellington	Oakengates	Audiology	As required
		Dental	As required
	Wellington	Audiology	One session weekly
		Child Guidance	Five sessions weekly
		Dental	Eight sessions weekly
		School Doctor	One session weekly
		Speech Therapy	One session weekly
Dr. Mackenzie Shrewsbury	1, Belmont	Audiology	Two-three sessions weekly
		Speech Therapy	Three sessions weekly
	5, Belmont	Dental	Thirty-four sessions weekly
	Condover Hall, Nr. Shrewsbury	Speech Therapy	One session weekly
	Katharine Elliot School (Woodcote Way)	Speech Therapy	Three sessions weekly
		Hearing Assessment	Three sessions monthly
	Education Department, Shirehall	Child Guidance	Seven sessions weekly
	White House	Audiology	As required
Dr. O'Brien Newport	Albrighton Junior School	Audiology	As required
	Albrighton County Infants School	Speech Therapy	Three sessions weekly
	Newport	Audiology	As required
		Dental	Four sessions weekly
	Shifnal	Audiology	As required
Dr. Moore Oswestry	Oswestry	Audiology	As required
		Child Guidance	One session monthly
		Dental	Five sessions weekly
		Ophthalmic	Two sessions monthly
		Orthopaedic	One session weekly
		School Doctor	One session weekly
		School Nurse's Session	One session weekly
		Speech Therapy	Three sessions weekly
Dr. Smith	Ellesmere	Audiology	As required
		Dental	Four sessions weekly
	Whitchurch	Audiology	As required
		Dental	Five sessions weekly
		Speech Therapy	One session weekly
Dr. Turnbull Bridgnorth	Bridgnorth (Northgate)	Audiology	One-two sessions monthly
		Child Guidance	One session monthly
		Dental	Five sessions weekly
		School Doctor	One session monthly
		Speech Therapy	One session weekly
	Highley	Audiology	As required

HOSPITAL AND SPECIALIST SERVICES

Children found to be suffering from defects requiring either the advice of a Consultant or in-patient treatment are referred, preferably in collaboration with their family doctor, to the following hospitals, all of which come under the Birmingham Regional Hospital Board. Children suffering from chest conditions are seen by a Chest Physician at one of the Chest Clinics.

General Medical and Surgical Conditions:

The Royal Salop Infirmary, Shrewsbury
Copthorne Hospital, Shrewsbury
The North Staffordshire Royal Infirmary, Stoke-on-Trent
The Kidderminster and District General Hospital, Kidderminster
The Wolverhampton Royal Hospital, Wolverhampton
The Staffordshire General Infirmary, Stafford

Eye Conditions:

The Eye ,Ear and Throat Hospital ,Shrewsbury
The North Staffordshire Royal Infirmary, Stoke-on-Trent
The Staffordshire General Infirmary, Stafford
The Kidderminster and District General Hospital, Kidderminster
The Wolverhampton and Midland Counties Eye Infirmary, Wolverhampton

Ear, Nose and Throat Conditions:

The Bridgnorth and South Shropshire Infirmary, Bridgnorth
Copthorne Hospital, Shrewsbury
The Eye, Ear and Throat Hospital, Shrewsbury
Ludlow and District Hospital ,Ludlow
Oswestry and District Hospital, Oswestry
Shifnal Cottage Hospital, Shifnal
Whitchurch Cottage Hospital, Whitchurch
New Cross Hospital, Wolverhampton
The North Staffordshire Royal Infirmary, Stoke-on-Trent
The Staffordshire General Infirmary, Stafford
The Kidderminster and District General Hospital, Kidderminster
The Wolverhampton Royal Hospital, Wolverhampton

Orthopaedic Conditions, including Fractures:

Royal Salop Infirmary, Shrewsbury
The Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry
The Kidderminster and District General Hospital, Kidderminster

X-ray Treatment of Ringworm:

The Midland Skin Hospital, Birmingham

Special Forms of Treatment not elsewhere available:

The Birmingham Children's Hospital, Birmingham

HANDICAPPED CHILDREN

Case-finding of Handicapped Pupils.—A handicapped pupil may be defined as one suffering from a disability of mind or body which is likely to interfere with normal growth, development and ability to learn.

The Education Act, 1944, imposed upon Local Authorities the duty of finding children who require special educational treatment and of providing this, if necessary, from the age of two years.

For the purposes of the Education Act there are ten categories of handicap:

Blind
Partially sighted
Deaf
Partially Hearing
Delicate
Educationally Subnormal
Epileptic
Maladjusted
Physically Handicapped
Speech Defective

Detection and Ascertainment.—The need for early discovery must be stressed and parents, family doctors, school medical officers, health visitors and teachers should refer any child thought to be suffering from a handicap so that assessment and any special educational treatment or training may be decided upon without delay.

Two registers are maintained in the School Health Service Section—a "Register of Handicapped Pupils" and an "At Risk" Register, the latter giving details of all children in whom the possibility of deafness caused by adverse influences in the pre-natal and post-natal periods is considered to be the greatest, e.g. premature infants, twins, children of mothers who have had a virus infection during pregnancy, etc. These "At Risk" categories are referred to again on page 24 of this report. Consultant Paediatricians advise the School Health Service about any handicapped children who are under their care.

During 1966 pupils ascertained under the provision of the Handicapped Pupils and School Health Service Regulations numbered 458—312 by School Medical Officers and 146 by the Consultant Psychiatrist, and a summary of the findings and recommendations to the Local Education Authority is given below. In addition 273 children found to be speech defective were brought under treatment by the Speech Therapist, whilst a further 1,150 children were found at the Medical Audiology Clinics to have defective hearing as a result of which recommendations and referrals were made in 648 of these cases.

HANDICAPPED PUPILS

Category	Pupils Specially Examined	Not Handicapped	Temporary exclusion from School	Special Educational Treatment Recommended			Reported to Local Health Authority		Pupils not requiring supervision on leaving school	Under treatment by Psychiatrist
				In Ordinary School	In Special School	Home Tuition	Unsuitable for education at school	Friendly supervision on leaving school		
Blind	—	—	—	—	—	—	—	—	—	—
Partially Sighted	3	—	—	—	3	—	—	—	—	—
*Deaf	2	—	—	—	2	—	—	—	—	—
†Partially Hearing	5	—	—	—	5	—	—	—	—	—
Delicate	21	—	—	—	10	11	—	—	—	—
Educationally Sub-Normal	236	45	—	82	45	3	15	43	3	—
Epileptic	6	—	—	—	3	3	—	—	—	—
Maladjusted	146	—	—	—	21	2	—	—	—	123
Physically Handicapped	39	—	—	—	24	15	—	—	—	—
TOTAL	458	45	—	82	113	34	15	43	3	123

* All children suspected of being deaf or partially hearing are now dealt with not by the individual School Medical Officer but by a Specialist Audiology Team, whose recommendations are referred to on page 27.

† Of this total 58 pupils were recommended for special educational treatment in the ordinary school and 24 were recommended for Day Special Class for Educationally Subnormal Pupils.

As well, the Medical Officers also carried out a further 653 examinations of handicapped pupils in connection with unsatisfactory school attendance, the provision of transport to and from school and the review of home tuition cases.

The following table gives details of the numbers of pupils ascertained by the School Medical Officers and Consultant Psychiatrist during the period 1957 to 1966:

		(1) Blind (2) Partially-sighted (3) Deaf			(4) Partially hearing (5) Delicate (6) Educationally subnormal			(7) Epileptic (8) Maladjusted (9) Physically handicapped			
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	TOTAL
Examined:	1957	5	5	—	2	35	341	4	43	22	457
	1958	2	2	—	11	24	204	5	120	34	402
	1959	1	3	1	6	36	247	2	116	39	451
	1960	1	—	4	3	42	299	1	62	35	447
	1961	—	2	2	2	31	283	5	65	18	408
	1962	2	2	—	3	21	247	1	99	22	397
	1963	—	3	1	2	15	252	6	99	21	399
	1964	3	3	—	—	26	292	9	30	18	381
	1965	2	2	—	3	16	268	—	95	36	422
	1966	—	3	2	5	21	236	6	146	39	458
Recommended for Special School:											
	1957	5	5	—	2	22	78	4	16	12	144
	1958	2	2	—	11	18	46	5	13	10	107
	1959	1	3	1	6	30	48	2	12	7	110
	1960	1	—	4	3	27	59	1	10	10	115
	1961	—	2	2	2	21	71	5	15	9	127
	1962	2	2	—	3	16	52	1	20	10	106
	1963	—	3	1	2	11	43	5	15	8	88
	1964	3	3	—	—	17	51	6	20	3	103
	1965	2	2	—	3	11	68	—	17	23	126
	1966	—	3	2	5	10	45	3	21	24	113

Report to Local Health Authority.—During 1966 a total of 58 children were recommended for report to the Local Health Authority under Section 57 of the Education Act as amended—15 under sub-section 4 as being unsuitable for education at school and 43 as being in need of friendly supervision after leaving school. The comparable figures for 1965 were 23 and 33 respectively.

Katharine Elliot School.—The following account of this interesting project has been contributed by Mr. A. I. Rabinowitz, B.A., the School's Principal, whose work has been so constructive since his appointment in September, 1964, when this Unit was transferred to a newly constructed and fully equipped Centre situated at Woodcote Way, Monkmoor Road, Shrewsbury.

"The Katharine Elliot School has now been open for two and a half years and, in this time, has changed quite considerably in both size and conception. Initially opened to cope with a large range of handicaps and to offer education, assessment and social training to about 24 children, the school now has about 30 children attending every day with a total roll of nearly 40. There are also about the same number of children on the waiting list. Thirty children have left the school. The range of handicaps of children attending and on the waiting list is wide, and intentionally so. Currently attending are children suffering from cerebral palsy in all its various forms, spina bifida and its associated conditions, blind and partially sighted children, one or two partially hearing children, psychotics, children for assessment as to whether they should go to an E.S.N. school or a Training Centre, and children suffering from a variety of other handicaps such as Hirschsprung's syndrome and lead poisoning. The age range, also intentionally wide, is from 2 to 9 years.

The school is now staffed by a Principal, who is an Educational Psychologist with many years' experience of teaching in ordinary and special education, two full-time and two part-time teachers, five nursery assistants, a social worker, a whole-time receptionist, a gardener/driver, a part-time carpenter, and a kitchen supervisor. A speech therapist, one full-time and two part-time physiotherapists and a doctor from the School Health Service also participate in the work of the school.

The unit is primarily a school but because of the nature of its work many Health Department services devolve upon it. Dr. A. D. Barker attends the school on an average of eleven sessions per month (eight of these are for routine medical inspection purposes and three for discussion with the staff about problems of the children in general).

Miss M.E.M. Evans is full-time social worker to the school and her duties involve visiting parents of children attending the school and also those whose names are on the waiting list in order to help them with the multitude of problems the birth of a handicapped child brings in its wake. Miss Evans is able to assist the parents in overcoming the emotional problems of having a handicapped child, and in their liaison with the various statutory bodies such as the Supplementary Benefits Section of the Ministry of Social Security.

Miss E. Caswell, Speech Therapist, who attends the school for three sessions a week and is now treating a total of 18 children, comments as follows: 'These children have defects ranging from a simple articulatory problems to complete absence of language. During the three sessions I do here each week, I try to see the more severe cases twice weekly and the less severe once weekly, according to their other commitments. Short term results are unsatisfactory, because of the nature of the majority of the problems, but in general, progress is slow but quite steady.'

There are at present three physiotherapists (one full-time, Miss D. B. Woods, and two part-time, Mrs. C. Duffy and Mrs. E. Guy) giving service equivalent to 1 and 6/11ths in terms of full-time officers. Mrs. Duffy reports on her work as follows: 'We are treating Spina Bifida and Spastic children at the Centre. The aims of our treatment are to try to make the children as independent as possible, e.g. to feed themselves and generally to move about as much as possible. We usually start with getting a child to roll over; then we try to progress to crawling, kneeling and, ultimately, to standing with balance. Once these have been achieved we then try and get the child to use some form of walking aid. Progress is slow, very slow, but progress is made. Time is the ultimate factor.'

As stressed by both Mrs. Duffy and Miss Caswell time is a factor which cannot be neglected in any way at all in the treatment of these children. In considering the children under our care, normal concepts of time have to be disregarded: progress is always made but very often the steps are so minute that to the lay eye, progress might almost seem to be negligible. To check on this progress an elaborate photographic record is kept of every child in conjunction with a series of twice termly reports by every member of the staff so that all the minutiae of the child's progress are recorded and remembered.

The other aspect emphasised by Mrs. Duffy, one of prime importance to the school, is the aspect of independence. From the time the child arrives here great stress is laid on the achievement of at least a degree of independence. This entails discovering for each child at least one area in which he or she can perform unaided. The actual site of this area is relatively unimportant. What has to be discovered is one area where the child can perform unaided and whether this area concerns brushing his teeth alone, eating alone or getting from point A to point B alone, is unimportant. From this point the children are encouraged to do everything themselves and due allowances are made for their handicap. This means that in order,

for instance, to get the child independent with regard to feeding it is often necessary to give the child twice as much time as it needs, three times as much food as it needs, and five times as much space as a normal child would expect so that the child can in the end get a full meal—by his own efforts.

In order to assist in this striving towards independence and also in order to maximise the results of the child's efforts, a small research programme is being undertaken.

The aims of this programme are to discover in which areas the child is suffering a degree of emotional blockage which makes it necessary to achieve a particular task. A further aspect of this study is concerned with the very careful observation of each child to note in which areas maximum value is received for effort expended and in which areas development and experience are lacking. Here we note whether a child is liable to achieve good function with a particular limb or within a particular area and to concentrate on the achievement of this good function to the almost total exclusion of achievement of minimal functions in other areas. A further research programme is underway into the learning behaviour of spastic children as compared with children suffering from spina bifida, etc.

To date this school appears to be fulfilling the majority of the Carnegie researcher's precepts for the school they envisaged in 1958. Dr. Kendall and Miss Calman, the Carnegie researchers, suggested that any Centre established in Shrewsbury should be for the assessment. observation and education of handicapped children, for the dissemination of information, for providing guidance, counselling and company to the parents of these children; for the co-ordination of the work of medical consultants and specialists from all fields; for the establishment of educational, psychological and medical research and finally for the dissemination of general publicity and information about handicapped children. The Katharine Elliot School as it is now, observes, assesses and educates handicapped children; informs, guides and offers company to the parents of these children; co-ordinates to a degree the work of consultants and other medical specialists and also runs a programme of research. The present school is too small because, as in the way of all things, the number of children for whom this school can offer help has grown out of all proportion to the numbers envisaged in the original research.

It is expected that the school building will have been enlarged by the provision of an extension before the next publication of the Principal School Medical Officer's report."

Home Visiting by School Medical Officers.—The School Medical Officers are given lists of handicapped children living in their areas and are expected to pay special attention to these children either in school or by home visiting. Some cases have to be referred to the Central Office for further advice and discussion.

Dr. A. D. Barker spent during the year approximately three half-day sessions per week on home visiting. Sometimes accompanied by Miss M. E. M. Evans, the Health Visitor/Social Worker, Dr. Barker visited the homes of very young handicapped children to examine and assess them, to discuss the question of their educational future with the parents and in general to give them help and guidance in the understanding and management of their children. Details of those young children who are considered suitable for attendance at the Katharine Elliot School for Handicapped Children, referred to on page 14, are passed to the Chief Education Officer. Mr. Rabinowitz, as Principal of the Katharine Elliot School, also visits with Miss Evans the homes of all those children who attend the School or are recommended for future admission.

The following are the numbers of handicapped children in the various categories who received domiciliary visits. They are, of course, also seen in the schools and clinics; home visits are carried out as often as the Medical Officers consider necessary.

HANDICAPPED PUPILS REQUIRING HOME VISITING

	Pupils on List	*Number Visited*	*Number not Visited*	*Visits Made*
Blind	23	7	16	7
Partially Sighted	41	17	24	19
Deaf	8	4	4	4
Partially Hearing	48	30	18	44
Some Hearing Loss	120	51	69	56
Delicate	225	111	114	142
Educationally Subnormal	789	310	479	356
Epileptic	88	37	51	46
Maladjusted	44	26	18	32
Physically Handicapped	457	253	204	302
Speech Defective	13	8	5	8
	1,856	854	1,002	1,016

Supervision of School Leavers.—The School Medical Officer, at the last routine medical examination of each pupil, makes a report if he considers the pupil unsuitable for work of any particular type. When the pupil leaves school this report is sent by the Head together with the "School Leaving Report" to the Local Vocational Guidance Officer, to ensure that any pupil on leaving school is not placed in employment for which he or she is either mentally or physically unsuited.

Handicapped pupils are also encouraged to enrol in the Register of Disabled Persons and so obtain through the Ministry of Labour sheltered employment and also special educational training open to Registered Disabled Persons.

Special arrangements exist to deal with the problem of after-care for pupils leaving Petton and Haughton Hall Residential Schools, and Mental Welfare Officers and Youth Employment Officers do, in suitable cases, visit the special schools before the child actually leaves. Each case is then followed-up at home to ensure that the child settles down in employment and becomes satisfactorily adjusted to post school life.

School leavers from Haughton Hall and Petton Hall who require supervision are followed-up by the Female and Male Mental Welfare Officers respectively and these officers attend the case conferences at the special schools concerned.

In order that handicapped children may be kept constantly under review in the twelve months preceding school leaving and during the following five years, an After-Care Committee co-ordinates the efforts of the various bodies concerned, namely the Education, Children's, Health and Welfare Departments, and the Ministry of Labour's Rehabilitation and Youth Employment Service.

Special Residential Schools for Educationally Subnormal Pupils.—Special Residential Schools for children who are educationally subnormal are provided by the Local Education Authority—boys at Petton Hall (90 places) and girls at Haughton Hall (73 places). The pupils have intelligence quotients between 50 and 80 and stay until 16 years of age.

Because of the unsatisfactory condition in which some of the pupils were returning to the schools after holiday periods, Health Visitors make "follow -up"visits during each holiday to the homes concerned. This is primarily to establish a good relationship with both child and family and also to ensure that each pupil is receiving any necessary medical or nursing care and returns to school free from infection and infestation.

SCHOOL REPORT OF THE PRINCIPAL DENTAL OFFICER

Towards the end of the year I was afraid that my report would once again have been a completely gloomy one on the question of professional staff recruitments. Fortunately in December we received two applications from newly qualified Dental Surgeons—namely Mr. Jarrett and Mr. Price. They attended for interview, and commenced duties in January, 1967. This gives a whole-time-equivalent of 8.3 Dental Officers. The present school population is approximately 50,000 with 27,000 "under 5's"—this means 9,000 "under 15's" per Dental Officer, or 6,000 school children. This figure is about 3,000 too high for it to be possible to carry out more comprehensive treatment for each child.

New Chrome Cobalt denture processing equipment was installed in 1966 at 5a, Belmont, the County Dental Service Headquarters in Shrewsbury, and is proving very satisfactory. It has, however, presented a problem in ventilation, and this, amongst others, is one of the reasons why 5a, Belmont, requires urgent alteration.

For part of the year we had two Dental Auxiliaries on the Staff—Miss Upton and Miss Pollitt, the latter joining us in September. Miss Pollitt worked full-time at 5a Belmont and Miss Upton, who unfortunately left us at the end of the year, divided her time between the Ludlow and Wellington Clinics. At Wellington Clinic one of the mobile units was parked to provide an extra surgery.

Dental Health Education was continued apace, and Miss Smith, our very willing and able Dental Hygienist, who does the major amount of this work, has been helped by the Dental Auxiliaries.

The treatment of handicapped and nervous children by using general anaesthetics, continues, and forms a very important part of the School Dental Service in Shropshire. This type of work has been carried out for a number of years at the Shrewsbury Clinic but sessions are now being held at Wellington Clinic. Without the help of Drs. Polland and Whitney, both Consultant Anaesthetists, this very valuable work would not have been possible.

A summary of the work done during the year is given below, and in my opinion compares very favourably with National returns, except for the inspections which, considering the high proportion of children found to require treatment, the high acceptance rate, combined with shortage of staff, is not surprising.

Work done during the year (these figures **include** those relating to the Mobile Dental Units):

Attendances and Treatment:	*Ages 5 to 9*	*Ages 10 to 14*	*Ages 15 & over*	*Total*
First Visit	3,364	3,451	799	7,614
Subsequent visits	4,271	6,411	1,753	12,435
Total visits	7,635	9,862	2,552	20,049*
Additional courses of treatment commenced	535	375	109	1,019
Fillings in permanent teeth	2,986	8,293	2,553	13,832
Fillings in deciduous teeth	3,577	300	—	3,877
Permanent teeth filled	2,596	7,120	2,296	12,012
Deciduous teeth filled	3,302	261	—	3,563
Permanent teeth extracted	331	1,809	441	2,581
Deciduous teeth extracted	5,429	1,583	—	7,012
General anaesthetics	2,005	1,153	176	3,334
Emergencies	902	564	121	1,587
Number of Pupils X-rayed				471
Prophylaxis				1,744
Teeth otherwise conserved				252
Number of teeth root filled				12
Inlays				10
Crowns				31
Courses of treatment completed				5,501

* In addition 1,380 visits were carried out by the Dental Hygienist.

Orthodontics:

Cases remaining from previous year	291
New cases commenced during year	188
Cases completed during year	110
Cases discontinued during year	9
No. of removable appliances fitted	275
No. of fixed appliances fitted	67
Pupils referred to Hospital Consultant	—

Prosthetics:	5 *to* 9	10 *to* 14	15 *& over*	*Total*
Pupils supplied with F.U. or F.L. (first time)	—	1	1	2
Pupils supplied with other dentures (first time)	5	33	20	58
Number of dentures supplied	6	56	44	106

Anaesthetics:

General Anaesthetics administered by Dental Officers	608

Inspections:

(*a*) First Inspection at school. Number of Pupils	7,725
(*b*) First Inspection at clinic. Number of Pupils	4,608
Number of (*a*) + (*b*) found to require treatment	9,221
Number of (*a*) + (*b*) offered treatment	8,920
(*c*) Pupils re-inspected at school or clinic	1,505
Number of (*c*) found to require treatment	1,017

Sessions:

Sessions devoted to treatment	3,108
Sessions devoted to inspection	243
Sessions devoted to Dental Health Education	159

Under the provisions of Section 78 of the Education Act, 1944, all the pupils (approximately 80) of Condover Hall School for the Blind were dentally examined and treatment carried out as necessary."

C. D. CLARKE, *Principal Dental Officer.*

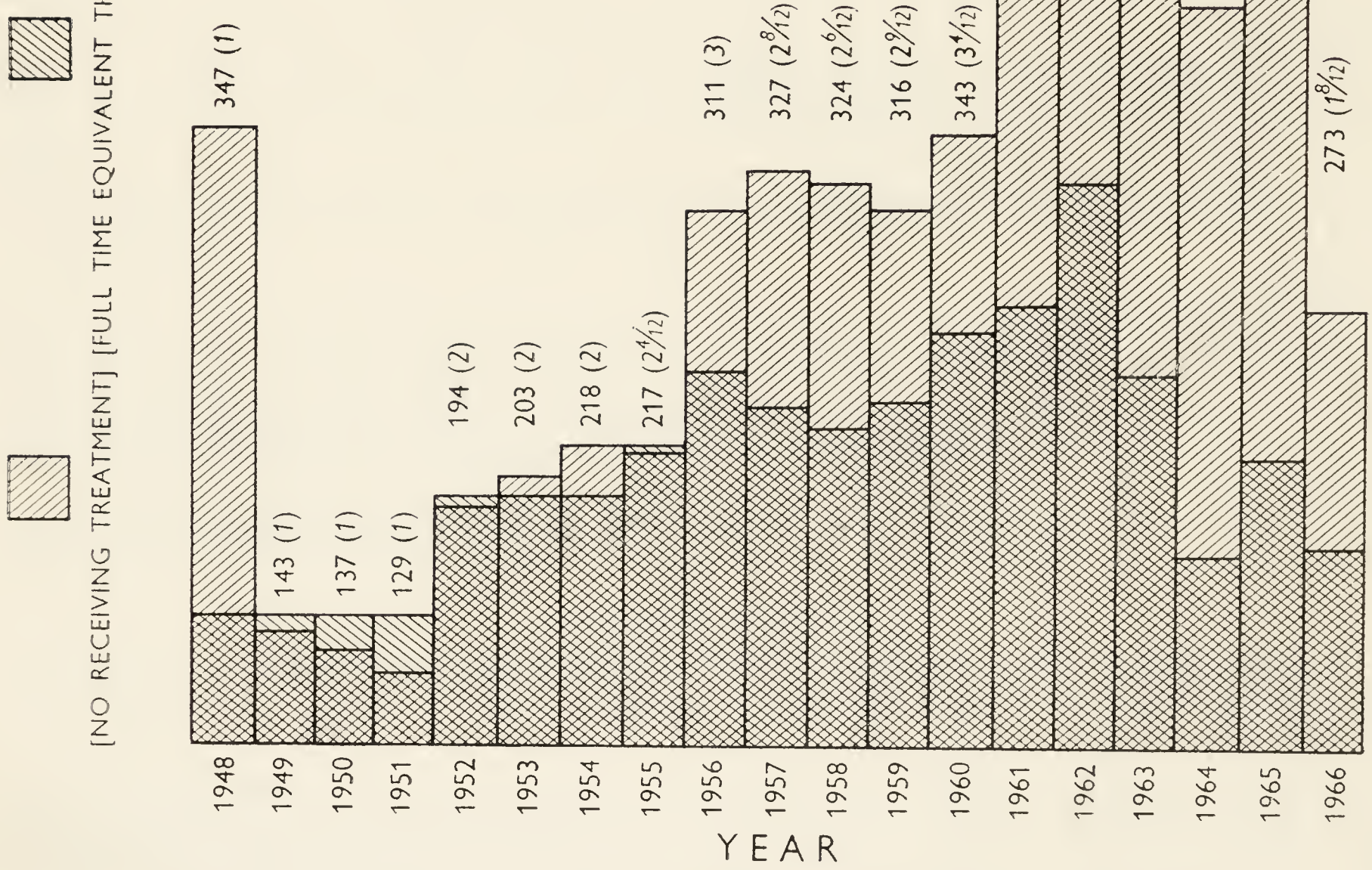
SPEECH THERAPY

A perennial plaint is the shortage of staff to fill the establishment of five Speech Therapists, (excluding the Senior post) and it has been of interest to study the information relevant to this situation.

In the last ten years, seventeen Therapists have been employed by this Authority, and although one of these remained in service for five years, the average length of stay is actually less than two years. Where do they go? Three are now in Senior posts, three have emigrated, six have married and the remainder have taken appointments with other Authorities.

What is the relationship between these fluctuating numbers of staff and the numbers of children treated? The histogram below attempts to show this by a comparison of the annual figures since the speech therapy service originated nineteen years ago. It does show that a high case load can be maintained only for a short while when there is a decrease in staff, but one can also envisage the comprehensive service that could be developed in this County with a full complement of therapists.

There is a national shortage of Speech Therapists and it can only be hoped that eventually of the number qualifying each year (average 120) more will remain in the service, that salaries will increase, and working conditions become more attractive.



**The figure for 1948 is that for number of children examined but not necessarily treated*

In May, 1966, we were fortunate in obtaining the services on a part-time basis of Mrs. M. Sheldon, but in September, 1966, Mrs. C. Maughan, who had resumed duty in 1965 as a part-time officer, resigned in order to become a mother, and in September, we were pleased to have Miss E. Caswell join the staff as a full-time therapist. Nevertheless a full service is still not available and it is a matter of some concern that schools where there is a high incidence of defective speech amongst the pupils, namely Petton Hall, Haughton Hall and the Junior Training Centre, have no Speech Therapist visiting.

One method of easing the general situation was thought to be feasible after discussion between the Senior Speech Therapist and the remedial teachers of the Education Department. It was suggested that if the remedial teachers were given details of the children awaiting treatment in the schools they visit, including instruction in some simple method of speech analysis, they would be able to assess the speech handicap. This would go some way towards allowing the Speech Therapists to grade the waiting lists in order of priority of necessity.

It is certain that the teaching staff of schools can assist in the simple treatment of children with mild defective speech and in a recent circular the Department of Education and Science have asked if Local Education Authorities can organise, where possible, some form of short training for teachers. It is hoped that this scheme will be introduced into this County in the near future.

Possibly of greater importance is the help that the child can receive in the home from its parents and in the majority of cases the therapist enlists the help of the mother to this end. Unfortunately it is the mother who always seems to assume this responsibility—the giving to the child of private speech lessons all the year round. It is generally agreed that if men had to attend to their children the latter would never use so many words and the child would scarcely learn to understand and talk as soon as it does when cared for by women. Elizabeth Browning illustrates this point in *Aurora Leigh:*

> Women know
> The way to rear up children, (to be just)
> They know a simple, merry, tender knack
> Of stringing pretty words that make no sense,
> And kissing full sense into empty words,
> Which things are corals to cut life upon,
> Although such trifles: children learn by such
> Love's holy earnest in a pretty play
> And get not over—early solemnized—
> Such good do Mothers. Fathers love as well
> —Mine did, I know—but still with heavier brains,
> And wills more consciously responsible,
> And not as wisely, since less foolishly.

The following table gives particulars of the conditions which necessitated attendance of 273 children who were given speech therapy during 1966:

Condition	Cases discharged during year	On Register 31st December
Stammer	28	23
Cleft Palate	4	4
Severe Dyslalia	30	44
Nasality + or —	—	4
Dyslalia	35	51
Voice Defect	1	1
Mongolism	—	—
Non Communicating	1	6
Partially Hearing	4	2
Educational Subnormality ..	1	4
Dysarthria	5	9
Mixed Defect	1	3
Dysphasia	—	3
Mental Defect	—	3
Language Defect	1	5
TOTAL ..	111	162

These totals include 8 children from 2 neighbouring Counties, the latter paying the Shropshire Education Authority for their treatment.

At the end of 1966, Speech Therapy Clinics were being held at the following Centres:

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning	1 Belmont, Shrewsbury	Oswestry C.W.C.	Madeley C.W.C.	Katharine Elliot School	Condover Hall
	Hadley Sec. Mod. School	Katharine Elliot School	1 Belmont Shrewsbury	Bridgnorth C.W.C.	Katharine Elliot School
Afternoon	Oswestry C.W.C.	Oswestry C.W.C.	Dawley C.W.C.	Eye, Ear & Throat Hospital	Whitchurch C.W.C.
	Wellington C.W.C.	Eye, Ear & Throat Hospital	1 Belmont Shrewsbury	Albrighton C.E. & Cty. Infants School	
		Albrighton Cty. Infants School	Albrighton Cty. Infants School		
Evening		Eye, Ear & Throat Hospital			

Cases Treated

On Register 1st January	New Cases during year	Cases discharged during year	On Register 31st December
132	141	111	162

Cases Discharged

Normal	Substantially Improved	Unlikely to benefit from further treatment		Left School or Ceased	Referred to Other Services	Total
		Slightly Improved	Unimproved			
56	10	13	3	23	6	111

In a small number of cases, discharge is temporary and children can attend later for further treatment.

In addition:

120 children made single visits to Centres for advice.

147 visits were made to individual homes.

20 visits were made to schools to see children and discuss cases with teachers.

In all, 273 children having regular treatment in the County made a total of 2,230 attendances.

At the time of writing there is a total of 301 children waiting for treatment and also 155 waiting to be reviewed after brief periods of treatment. The greatest number waiting for treatment is in the Shrewsbury district, but in the Market Drayton, Ludlow and Newport areas, where no Speech Therapist is working, there has been a resulting build-up in cases. This is a problem which we hope to tackle in the coming year, an easy task if we are fortunate in recruiting extra staff.

E. PAULETT

Senior Speech Therapist

AUDIOLOGY

It may be useful to clear some misconceptions if an attempt is made to define the field covered by audiology and the role of the audiologist.

Audiology refers to the study of hearing and hearing disorders and includes an interest in the function of the ear as well as diseases of the ear. The field of audiology is a broad one to which varied specialists, namely the Medical Officer of Health, Consultant Otologist, Paediatrician and Psychologist, contribute their knowledge and skills.

It has become clear, to quote Professor Ian G.Taylor, "that the extension of work in this field calls for one practitioner to have particular interest, knowledge and skill as an *audiologist*. This is a person who has been trained to draw together all the relevant parts of the various disciplines bearing on the diagnosis and assessment, clinical and educational management of each child". Among the contributing disciplines are those of physics, medicine, psychology, education and sociology. Clinical audiologists test hearing and may make recommendations concerning the use and choice of hearing aids, but they do not provide hearing aids.

An *audiometrician* is a person trained to use an audiometer and who is capable of using such a machine to measure objectively the responses to test signals by the patient. The audiometrician does not make a diagnosis nor recommend any approach along the lines of assessment or management of the hearing handicapped.

In July 1966, Mrs. J. Robinson was trained by the audiologist in the principles of pure tone audiometry and was then appointed as audiometrician, her duties being the sweep frequency testing of all school entrants and eight year old pupils in maintained schools of this Authority.

Two Medical Officers, who had been given courses of instruction the previous year by the audiologist in the basic clinical techniques of audiological testing and ascertainment, attended a one week course in March, 1966, at the Department of Audiology, University of Manchester. In April, 1966, one other Medical Officer attended a week-end refresher course for Medical Officers at the same Department.

The total staff of the Health Department audiology team now comprises:

1	Audiologist
7	Medical Officers
11	Health Visitors
1	Audiometrician

The second annual one-day refresher course was held at the Shirehall in July and the subjects covered by films and lectures were as follows:

Cochlear Dynamics, theories of hearing.
Modern Problems of Middle Ear Deafness.
Work of the Peripatetic Teacher of the Deaf in Shropshire.
Problems of the Child with Hearing Difficulties.
Screening tests of hearing of children aged 2—5 years.
Physical Diagnosis—Ears and Hearing.

Infant Hearing Tests

During the past year, 1,511 babies (out of 5,866 live births attributable to the County) were placed on the "at risk" register. Testing of these babies is usually made when they have reached the age of 8—9 months and during the year the number tested at the 188 clinics held was 1,385, the results being summarised in the following table:

INFANT HEARING TESTS PERFORMED

	Tested	Passed	Failed or did not co-operate		
			For Retest	For Medical Audiology Clinic	To be seen by Audiologist
New cases ..	1,341	1,258	74	3	6
Review cases	44	31	9	1	3
TOTAL	1,385	1,289	83	4*	9†

*Of these 4 cases: 2 are to have further hearing tests;
1 was discharged with normal hearing in 1967; and
1 subsequently attended the Hearing Assessment Clinic and the issue of a hearing aid was recommended.

†Of these 9 cases: 6 were discharged with normal hearing;
1 was referred to the Medical Audiology Clinic; and
2 are to have further hearing tests.

It was noticeable that of this number tested only one child was discovered to be profoundly deaf. In the previous year two children were found to have a congenital defect of hearing.

Sweep Frequency Testing

SWEEP FREQUENCY TESTS PERFORMED

Category	Tested	Normal	Hearing Suspect
Primary School Children	9,004	8,081	923
Suspected Deafness ..	32	26	6
Backwardness	40	37	3
Speech Disorders	13	11	2
TOTAL ..	9,089	8,155	934

The audiometrician, who was appointed in July, completed in the remaining part of the year the testing of nine times as many children as were seen in the whole of the previous year. On average one child in every ten fails this test and, as mentioned in previous reports, it is from within this group of failures that the bulk of children later referred for medical or special educational treatment are found.

The sweep frequency testing of 5 and 8 years old school children performed by the audiometrician is now carried out at 25 decibels across the frequencies 500, 1,000, 2,000, 4,000, and 6,000 cycles per second and any child failing this test is re-screened at 30 decibels. If there is a failure at the 30 decibel level the child is referred to the Medical Audiology Clinic. Those who fail at 25 decibels but pass at 30 decibels are kept under observation by the school teaching staff and and are referred to this office for a clinic appointment in case of any difficulty at school. This scheme is an experimental one for a period of twelve months following which an analysis will be made of the results. This is a calculated "risk" and it will be interesting to note what effect the lowering of the pass threshold will have on the number and type of cases referred on to audiology clinics.

Medical Audiology Clinics.—The failures at sweep frequency testing in schools and also other children who have been referred by School Medical Officers, Speech Therapists, Educational Psychologists, Teachers of the Deaf, Medical Practitioners and Hospital Specialists are all seen at the Medical Audiology Clinic. These clinics are staffed by one of the Medical Officers trained in this work, or the Audiologist, and one trained Health Visitor.

During 1966, a total of 287 clinics was held and 2,355 detailed hearing tests were made, with the results indicated below:

RESULTS OF TESTS AT MEDICAL AUDIOLOGY CLINICS

Referred by	Cases	Number Tested Age Groups			Discharged	Further Investigation	Hearing Defective					
							One Ear				Both Ears	
							Severe		Moderate			
		Under 5	Primary	Secondary			L.	R.	L.	R.	Severe	Moderate
Aural Surgeon ..	New	1	19	8	8	2	—	1	2	2	3	10
	Review	2	22	11	8	4	1	—	1	4	2	15
Audiologist	New	—	2	—	1	1	—	—	—	—	—	—
	Review	—	—	—	—	—	—	—	—	—	—	—
Teacher of Deaf ..	New	—	26	2	8	4	—	—	1	3	2	10
	Review	—	31	11	14	6	1	1	3	4	3	10
Educational Psychologist ..	New	—	7	—	3	—	—	—	—	2	—	2
	Review	—	2	—	—	1	—	—	—	—	—	1
Family Doctor ..	New	—	20	2	7	1	—	—	—	—	2	12
	Review	—	13	1	1	—	1	—	1	3	—	8
Head Teacher	New	1	24	2	7	4	—	—	4	2	1	9
	Review	—	19	9	6	3	—	—	3	1	—	15
Health Visitor/School Nurse	New	2	30	3	23	2	—	—	1	1	1	7
	Review	—	30	8	10	3	1	1	—	2	4	17
Infant Assessment Clinic	New	5	6	—	3	4	—	—	—	—	—	4
	Review	4	25	—	1	8	—	—	1	2	5	12
School Medical Officer	New	1	208	48	105	25	—	3	12	10	10	92
	Review	—	215	75	85	26	2	3	13	13	22	126
Speech Therapist ..	New	—	36	1	26	4	—	—	1	1	2	3
	Review	—	21	4	9	5	—	—	7	1	1	2
Survey	New	—	1	—	—	—	—	—	—	1	—	—
	Review	—	2	—	—	—	—	—	—	1	—	1
Sweep Test	New	—	723	20	475	26	1	6	34	51	10	140
	Review	—	399	78	165	4	6	4	37	32	39	190
2 H.P. Case (E.S.N.) ..	New	—	56	22	65	—	1	—	2	3	—	7
	Review	—	4	6	4	—	1	—	—	1	1	3
Parent	New	2	29	3	12	3	—	1	1	2	1	14
	Review	—	44	3	16	4	—	2	5	3	3	14
Paediatrician	New	—	3	—	1	—	—	—	—	—	—	2
	Review	—	3	—	1	1	—	—	—	—	—	1
TOTALS ..		18	2,020	317	1,064	141*	15	22	129	145	112	727
		2,355			2,355							

*This figure includes cases where the Medical Officer was unable to diagnose definitely any permanent hearing loss. The children concerned may, at the time of examination have been suffering from such conditions as colds, catarrh, etc., or have had wax in the ears. In order not to inundate the Otologists with unnecessary referrals these children were called for further investigation before a final decision or recommendation was made.

Following attendance at the above Clinics, recommendations and referrals were made as follows:

Recommended to sit in an advantageous position in class ..	180
Notified to the Head of the School for information and guidance	115
Notified to the Peripatetic Teacher of the Deaf to visit and advise in School	85
Referred to—Speech Therapist	25
—Educational Psychologist	58
—Family Doctors for treatment	26
—Ear, Nose and Throat Specialists	14
—Hearing Assessment Clinic, for a final decision on operative treatment, special educational placement or the provision of a hearing aid ..	145

During 1966 there was a 20% increase in the work undertaken at Medical Audiology Clinics. For some while it has been realised that the comprehensive table of results shown above does not, in fact, indicate meaningfully the degree of hearing handicap of the children. In order to tackle this problem from an angle other than the measuring of hearing loss in one or both ears, it has been decided to attempt the assessment of degree of hearing handicap. This will take into account the pure tone audiometric measurements, as well as the child's ability to understand ordinary speech. The Medical Officer will then grade the findings along a six-point scale ranging between "not significant" to "extreme". The coming twelve months will see this method put into operation and the results should prove to be of greater use to the members of the team in both the Education and Health Departments.

Hearing Assessment Clinics.—These are attended by Mr. E. N. Owen, F.R.C.S., Aural Surgeon at the Eye, Ear and Throat Hospital, Shrewsbury; the Audiologist; a Teacher of the Deaf; an Audiology Technician from the Hospital Group; one of the School Medical Officers and one of the specially trained Health Visitors.

Each child is thoroughly assessed by the Specialists in attendance and the parents are advised and given any help and guidance required. The family doctor is notified that the child will be attending for assessment and is always advised of the outcome, as is the Head Teacher of the child's school.

During the year the same number of clinics was held as in the previous year, but there was approximately 14% increase in the number of children seen.

In 1966 at 29 Hearing Assessment Clinics the following recommendations were made for 173 children:

Provision of *Medresco* (N.H.S.) hearing aids	28
Operative treatment	50
Admission to the Partially Hearing Unit at Coleham School ..	4*
Review at the Medical Audiology Clinic	70
Recall for review at a later date	7
To be seen by Mr. Owen at the Hospital Out-patient Department	2
Reference to a Consultant for treatment at the request of the parent	1
Special home visits by the Audiologist	2
Discharged	11

*This figure includes 2 children who were also recommended for a *Medresco* (N.H.S.) hearing aid.

Again it should be stressed that although the Audiologist has the task of co-ordinating the audiological services the Assessment Clinic is a joint clinical session and recommendations made are "team" ones.

It is pleasing to report on the close relationship that exists between this Authority and the neighbouring counties of Radnorshire, Montgomeryshire and Merionethshire. Assessments of hearing handicapped children, prolonged parent guidance and auditory training for profoundly deaf children from these areas have been undertaken throughout the year by the Audiologist.

Montgomeryshire is setting up its own audiology service and there has been frequent interchange of ideas between its County Medical Officer and the Consultant Otologist and Audiologist from Shropshire. The latter have visited Newtown, Montgomeryshire, and organised a short course of lectures and demonstrations for Health Department personnel.

Very useful visits were made by the Senior Medical Officer and Audiologist to Rayners School Buckinghamshire, and Bridge House School, Yorkshire, during the year. Fortunately it is some while since a child from this County was sent away to a Residential School for the deaf and the major reason for this must be the excellent work that is performed by the Teachers of the Deaf at the Partially Hearing Unit in Shrewsbury.

There is an ever increasing awareness of the problems of the hearing impaired child and doctors, teachers and parents nowadays make use of the audiology service in referring cases of sinusitis, tonsillitis, colds or hay fever; children who function below their potential ability at school; who have become a behaviour problem at school and home; are withdrawn and do not mix with other children; who fail to articulate, or omit, sounds of speech; who want to watch the speaker's face; fail to pay attention, etc. It is inexcusable for such children to be neglected and with more comprehensive sweep frequency testing and early referral these children should be discovered before they manifest these behaviour characteristics.

E. PAULETT

Audiologist/Senior Speech Therapist

CHILD GUIDANCE SERVICE

Dr. Benady, Consultant Child Psychiatrist, gives the following account of the work carried out by the Child Guidance Service during 1966:

"We were very pleased and fortunate to welcome to the Clinic staff in November, 1966, Miss Bridget Downer as Senior Psychiatric Social Worker, so that we are now approaching full strength and are able to offer a wider range of therapeutic procedures, such as family therapy; fortunate because of her wide experience and knowledge of Shropshire which she has already put to good use. All this also means that additional clerical staff has had to be employed and we took this opportunity to centralise the administration of the total Child Psychiatric Services for the County. Increasing use has been made of the Clinic, in particular by General Practitioners and twenty per cent more cases were referred to the Clinic this year than last year.

On the Psychological side, the development of remedial therapy by the School Psychological Service has made available skilled help for our disturbed children, and the Psychologists have also instituted group work. On these days as many as thirty children visit and receive remedial educational help and group therapy.

The increasing size of the Clinic staff means that we are now approaching saturation point in our present premises and the administrative staff is also being pressed, especially as we have been maintaining close contacts with the referring agencies in our efforts to help the families referred to us. Again, from an administrative point of view, the disposal problem of disturbed adolescent boys remains. We are not able to offer them anything other than psychotherapy when often their behaviour is too disturbed at home or at school for them to remain accepted by the community. The disturbance is not just one of bad behaviour but often of intense personal unhappiness.

We all feel at the Clinic that this has been a year of consolidation and progress and we look forward to the establishment in the near future of an Observation Class for severely maladjusted children such as young psychotic children or brain damaged children.

Our close ties with the Education Department, the School Medical Officers and the Hospitals have been strengthened, in spite of the additional work load that has been carried, and we hope that our clients have benefited from this."

Summary of work done during 1966

Total number of new referrals	324
Unco-operative	10
Awaiting appointments	18
Total number of new cases seen	316
Old cases re-referred for further help	36
Treatment cases carried forward from 1965	103
Total case load	455

Sources of referral:

Head Teachers	26%
Private Doctors	26%
Principal School Medical Officer	27%
Parents	7%
Probation Officers	2%
Miscellaneous, e.g. Children's Department, Psychiatric Hospitals, Education Welfare Officers, Speech Therapists, N.S.P.C.C., Health Visitors.	12%

Reasons for referral:

Behaviour difficulties such as aggressive behaviour, severe temper tantrums, truancy, pilfering		33%
Nervous conditions such as night terrors, anxiety conditions, stammering and timidity		27%
Physical disorders, e.g. day or night enuresis, soiling, failure to eat or sleep normally		27%
Failure in school. Difficulties either in specific subjects, general behaviour or general attitude to work		12%
Miscellaneous reasons: vocational guidance, advice re adoptions, reports to Magistrates		1%
Number of new cases seen by Psychiatrist		143
Diagnostic Interviews only	47	
Taken on for treatment	96	
Treatment cases carried forward from 1965	56	
Total case load	152	
Number recommended for admission to Schools for Maladjusted Children		21

B.C.G. VACCINATION OF SCHOOL CHILDREN

B.C.G. vaccination against Tuberculosis is available, with parental consent, to:

(*a*) school children in the year preceding their fourteenth birthday;

(*b*) children of 14 years and upwards who are still at school and students at universities, teacher training colleges, technical colleges and other establishments for further education; and

(*c*) whole school classes, which may include a few children under 13 years, for convenience.

The following particulars of schools visited for B.C.G. vaccination purposes during 1966, with comparative figures for 1965:

	Maintained and Grant-aided Schools		Independent Schools		Total	
	1966	1965	1966	1965	1966	1965
Schools visited	47	34	25	17	72	51
Children tested	3,496	2,248	600	276	4,096	2,524
Reactors—positive	200	145	70	28	270	173
—negative	3,097	1,963	526	242	3,623	2,205
Not read	199	140	4	6	203	146
Children vaccinated	3,034	1,925	507	232	3,541	2,157
Negative reactors not vaccinated	63	38	19	10	82	48

Some 8 maintained and grant aided schools were visited twice during the year, which brings the total actual visits paid to schools to 80.

The acceptance rate for B.C.G. vaccination for 1966 was 78.6 per cent.

In addition a special survey was made at one school where children had been in contact with a known case of Tuberculosis:

	Tested	*Positive Reactors*	*Negative Reactors*	*Not Read*	*Negative Reactors Vaccinated*
Children (all ages)	107	35	72	—	—

N.B.—These figures are not included in the table above.

*The majority of the negative reactors were pupils under 13 years of age and therefore too young for vaccination; they will be retested when they reach 13 years of age. Also included in the above figures are 8 children who were missed at a survey done in 1965 and who were subsequently seen early in 1966.

Mass Radiography.—Appointments for chest x-ray by Mass Radiography are offered to all positive reactors and also to their home contacts. In addition, those pupils who have had large Mantoux positive reactions (induration 15 mms. and above) have follow-up X-rays four months and sixteen months after their initial chest X-ray.

During 1966 some 125 children with large positive reactions were referred for follow-up X-rays.

The table below summarises the results of all cases investigated by the Stoke-on-Trent and Wolverhampton Mass Radiography Units:

	Pupils	*Home Contacts*	*Staff*
Cases investigated	602	212	177
Recalled for large film examination	5	8	3
Cases of tuberculosis discovered	—	2	—

(Included in the above figures are 357 children and 166 staff, from the schools at which special surveys were made. Three children and three members of staff were recalled for large film examination).

The two cases found among the home contacts were notified as suffering from active pulmonary tuberculosis following X-ray as contacts of their children who had Mantoux positive reactions.

DIPHTHERIA IMMUNISATION

Routine Medical Examination Sessions in school give the School Medical Officers opportunity to check on the children's state of protection against Diphtheria, to urge the importance of immunisation and to get parental consent to its promotion and maintenance. School Nurses, Health Visitors and District Nurses, who in the course of their duties discover school children who have missed immunisation, also endeavour to obtain the necessary parental "consents." Propaganda methods, including the display of posters, are also used from time to time to remind the public of the importance of immunisation.

During 1966, the total number of children *of school age* who were primarily immunised was 732; of this number 646 were treated by School Medical Officers and 86 by general medical practitioners.

Children immunised against Diphtheria in infancy should have a reinforcing injection after an interval of three or four years and School Medical Officers at routine medical inspections advise this in appropriate cases.

Unfortunately, due to the demand for poliomyelitis vaccination between 1957 and 1962 and to the demand for smallpox vaccination in 1962, there was a decline in the numbers of children receiving booster doses against diphtheria. In order to rectify this, a new procedure was started during the Autumn Term, 1963. Under this scheme consent forms are issued to parents of 5 and 11 year olds annually at each school. In addition to protection against diphtheria, primary immunisation or boosters against tetanus and poliomyelitis were offered to 5 year olds. Children aged 11 years were offered booster or primary immunisation against diphtheria and tetanus, and re-vaccination against smallpox: parents have the choice of their children being given the necessary doses either at school or by their family doctors.

Of 5,502 school children given "booster" doses in 1966, some 4,486 were dealt with by the School Medical Officers and 1,016 by general medical practitioners.

The effects of the immunisation campaign are demonstrated by the following table showing the incidence of, and deaths from, Diphtheria among persons of all ages in the County during the past twenty years.

		1947—51	1952—56	1957—61	1962—66
Notifications ..	Total	25	1	1	—
	Annual average	5	0.2	0.2	—
Deaths ..	Total	3	1*	—	—
	Annual average	0.6	0.2	—	—

*Death of elderly woman, assigned by Registrar-General; C. diphtheria not found.

VACCINATION AGAINST SMALLPOX

During the year, 251 children between the ages of 5 and 14 years were vaccinated against Smallpox. Of this number, 164 vaccinations were performed by School Medical Officers and 87 by general medical practitioners.

In addition, 991 children were re-vaccinated, 732 by School Medical Officers and 259 by general practitioners.

VACCINATION AGAINST POLIOMYELITIS

Both Sabin (oral)and Salk (injection) vaccines continued to be available, but the former was the more widely used almost to the exclusion of the latter.

Some 566 children between the ages of 5 and 15 years received primary vaccination during the year and, of these, 401 were dealt with by County Council Medical Officers while the remaining 165 received their doses from General Practitioners.

In addition, a further 3,665 children in the same age group were given fourth (or booster) doses, 2,780 by County Council Medical Officers and 885 by General Practitioners.

IMMUNISATION AGAINST TETANUS

Of the 2,760 children who received primary immunisation against tetanus, 2,512 were dealt with by School Medical Officers and the remaining 248 by general practitioners. Of a further 4,772 children who received booster doses of tetanus antigen mainly in conjunction with diphtheria boosters by means of combined vaccines, 3,371 were immunised by School Medical Officers and 1,401 by Practitioners.

HEALTH EDUCATION

The demand for illustrated talks continues to increase and to be intensified by the success of the new "Personal Relations" venture. All requests for talks have been met and there is again a considerable increase in the numbers of talks delivered.

During the year in the course of their normal duties, School Medical Officers, Dental Officers and Health Visitors visit schools in the County and give talks on health subjects. Visual aids, films, filmstrips, slides and flannelgraphs, together with leaflets and posters or display panels, are available. This applies to all schools whether or not they are provided with projection facilities.

The most popular topics have been general health and hygiene, nutrition, grooming, care of person, teeth, feet, food hygiene, and more specialist subjects such as parentcraft, smoking, venereal diseases and safety in the home.

"**Learning to Live**"—Help is afforded to adolescents by the offer of sex education programmes involving some explanation and discussion of "growing up" problems. This particular service is offered to schools and is undertaken at the instance of headmasters and headmistresses. The basic programme is fundamental to all schools, but its application is individual and governed by the special needs of the pupils and schools who accept it. It cannot be too strongly emphasised that this "Learning to Live" programme is complementary to the efforts of parents and teachers alike to educate their children for life in the modern world.

Where Heads of Secondary Schools have requested sex education programmes the courses are arranged by Mrs. Jean Owen, who is a professional teacher recruited to the staff of the County Health Department for this express purpose.

The complete course consists of three visits to each school and Mrs. Owen can call upon a Medical Officer for one of the three meetings if requested. She is also aided by Mr. H. Harris who has charge of any visual aids which may be required for the programme.

The first meeting is introduced by the showing of a modern film "Learning to Live" produced by the London Foundation for Marriage Education. This is a most useful and sensitive film, greatly appreciated by both boys and girls, which gives not only the biological facts of reproduction but also touches upon aspects of personal relationships, responsibility and questions of morality.

Questions submitted by the pupils at this first meeting form the basis for the succeeding meetings which are best conducted in smaller groups as free discussion is a most valuable part of this course. In fact, one of the conclusions which one formulates as the scheme progresses, is that these young people find discussion in their own age group, under an outside chairman, a most helpful measure—their individual problems and those of their friends when brought out and discussed seem to help them to get life's complexities into focus.

The pressures of the adult world, relentlessly applied through the mass media, bring to these young people the necessity of resolving their personal patterns of behaviour at an earlier age than, perhaps, ever before.

One finds that these boys and girls have few inhibitions in discussing problems of sexual behaviour, and modern morality, provided that the adult in charge is prepared to meet them with an equally straightforward approach.

Another welcome development of this work is the increasing interest shown by Parent-Teacher Associations. Heads of schools are asked to inform the parents of pupils who are to receive these lectures so that if they so wish, pupils may be withdrawn.

In presenting this course to the Secondary Schools of Shropshire, we hope that we are able to help the teachers to open a window on this adult world and its problems, to help the boys and girls to solve some of their own and to achieve the emotional maturity which we all need for a happy life, before and after we leave school.

Smoking and Health.—Research and all the available statistical evidence indicates that there is a definite correlation between the smoking of cigarettes and the incidence of lung cancer, and on grounds of general health we do all that is possible by personal example and by the giving of information to discourage the formation of the smoking habit in youth and to curtail it in the addicted among the older generation.

Some Heads of Schools have felt that talks devoted entirely to smoking were undesirable because they tended to give undue emphasis to the practice and might well stimulate interest and experiment among those in whom the reverse reaction was intended but School Medical Officers are nevertheless expected to take every opportunity of pointing out to children the ill-effects of indulging in habits which are calculated to undermine good health.

In this County we have supported the Ministry of Health's anti-smoking campaign:

(*a*) by a programme of talks and the showing of films and slides in schools, available on request;

(*b*) by displaying posters in clinics, council premises and elsewhere by distributing leaflets;

(*c*) by offering talks to organised groups.

PHYSICAL EDUCATION

The following report has been provided by Mr. J. W. Beswick, Physical Education Adviser:

Shropshire Schools' Field Centre at Arthog.—The Schools' Field and Adventure Centre was again over-subscribed this year; some 250 pupils and staff had to be disappointed.

The total attendance this year was 1,200 pupils and staff.

The range of activities undertaken by the schools, continues to widen, from seashore ecology, surveying, land erosion to potholing, caveing and sailing, in addition to the exploration of mountains.

It is hoped by future development to make this into an "All Year Round" centre. All the children attending the centre at Arthog are examined before departure by a School Medical Officer and must be certified free from infection and verminous infestation before being allowed to proceed. Arrangements are made with a local medical practitioner to provide medical services at the centre when needed.

Swimming.—New baths at Much Wenlock, Pontesbury and Worfield, added to the present number, means the use of some twenty-four baths.

In consequence of this, more children have been able to take swimming. L.E.A. awards increased by an extra 30%, A.S.A. survival awards by 60% and R.L.S.S. awards by 40%. More baths to be built at schools are proposed for the future.

The two "clinics" held every week-end for the "elite" swimmers continue and are proving their worth by the better performances at County and Inter-County level.

Duke of Edinburgh's Award.—The number of new entrants into the Scheme this year were 414 boys, 204 girls. Adding these to pupils already participating would make a grand total of over 1,200 pupils.

120 boys gained awards, 11 of them went to Buckingham Palace to receive gold awards.

52 awards were gained by girls, but at the moment none has reached the gold stage.

Shropshire Schools' Sports and Athletics Association.—This association since last year has added to its list, archery, table tennis, badminton, trampolining and gymnastics. They now, therefore hold Area, County and Inter-County Competitions in twenty-five sports and games.

Very many more pupils are now able to compete in high level competition at National and International level.

Physical Education.—Although we still receive a few criticisms about "bare foot" work, these criticisms get less and less as parents find the beneficial effects of mobility of the feet worthwhile.

The advent of new halls, changing and washing accommodation in our new primary schools enables many more children to make the most of the opportunity of taking part in this activity.

SCHOOL CANTEENS

Medical Examination of Staff.—In order to ensure as far as possible that those engaged in the School Meals Service are not suffering from, or carriers of, infectious diseases liable to be transmitted by contamination of the food served in the canteens, the medical examination of canteen staffs is carried out at least once a year, and new entrants to the service are examined as soon as possible and also given chest X-ray examinations. They should be examined *before* commencing employment; often the worker's services are urgently required and prior examination is not considered possible, but this is potentially dangerous practice.

These medical examinations are directed towards establishing the cleanliness of the person, clothing and hands of those employed in the preparation or handling of food; and the absence of infectious conditions such as septic skin lesions, discharging ears and chronic catarrh and other conditions such as eczema or other forms of dermatitis.

If on initial examination an employee is found to have a history or shows symptoms of intestinal disorder, arrangements are made for specimens of faeces, and if necessary urine, to be submitted to the Public Health Laboratory, Shrewsbury, for investigation.

The following particulars give some indication of this work during the year:

KITCHENS AND SCHOOL CANTEENS

Premises		Personnel Employed				
		Supervisors	Cooks	Helpers	Others	Total
Central Kitchens ..	11	11	27	96	13	147
Self-contained Canteens	143	6	202	615	307	1,130
Canteens for dining only	151	—	—	315	203	518
TOTAL ..	305	17	229	1,026	523	1,795

During 1966 a total of 1,622 examinations of canteen personnel (337 initial and 1,285 re-examinations) was carried out.

In thirteen cases it was necessary to arrange for special chest X-ray examinations and the results in all these cases were satisfactory. X-ray examinations are made when the Miniature Mass Radiography Unit is in the area, or can be arranged specially at the request of the Medical Officer.

Two employees who were contacts of cases of dysentery and food poisoning respectively were suspended from duty for the appropriate period recommended in Ministry of Health Regulations, and allowed to resume after a series of faecal specimens submitted for bacteriological examination had proved to be satisfactory. Another canteen employee who was a contact of a case of infective hepatitis was likewise suspended from duty, but subsequently pronounced fit to return to work.

This scheme has been extended to include personnel engaged in the preparation and handling of foodstuffs at the Boarding Schools and Hostels in the County.

SANITARY CIRCUMSTANCES OF THE SCHOOLS

In 1954 School Medical Officers completed comprehensive inspection reports on all the school premises in the county making notes on the sanitary arrangements, water supply, washing accommodation, canteens, heating, lighting and ventilation. On the occasion of each annual routine medical inspection the premises are re-inspected and matters which require attention or investigation are referred to the Chief Education Officer with a view to their being dealt with by the Education Works Committee.

GENERAL

Meals.—School canteen meals are available at 1/- per head (free in necessitous cases) for one hundred per cent of children attending school; 78.1 per cent were having school dinners at a census taken in September, 1966; in September, 1965, the figure was 74.7 per cent.

Milk.—Milk is supplied free of charge in all schools and a census taken in September, 1966, showed that 73.6 per cent of the children were drinking it.

Quality of Milk Supplies.—As far as possible only Pasteurised Milks are supplied; of a total of 288 departments in maintained schools, 287 had pasteurised supplies and 1 an untreated supply in 1966.

Investigation of Milk Supplies.—The County Public Health Inspectors are responsible for the supervision of school milk supplies and samples for testing are obtained by Sampling Officers of the County Health Department. Methylene Blue colour tests to determine the keeping quality and, in the case of Pasteurised milk, Phosphatase tests to determine whether the milk has been properly processed, are carried out on milk from each supplier at regular intervals.

The table below gives the results of the examination of samples taken during 1966:

Grade of Milk	Samples taken	Methylene Blue Test			Phosphatase Test	
		Satisfactory	Unsatis.*	Void†	Satisfactory	Unsatis.
Pasteurised	87	82	4	1	87	—
Untreated	4	2	2	—	—	—
TOTAL ..	91	84	6	1	87	—

*In the cases of the samples failing the Methylene Blue Test follow up samples were taken, and these proved to be satisfactory.

†Methylene Blue tests are declared void when the atmospheric shade temperature exceeds 65°F. during storage in the laboratory.

Medical Examination of Prospective Teachers.—During 1966, the medical staff of the School Health Service examined 283 candidates for entry to the teaching profession.

STATISTICAL TABLES

(i.e. as submitted to the Department of Education and Science on Form 8.M)

TABLE I (A) PERIODIC MEDICAL INSPECTIONS

Age Groups inspected (By year of birth)	Number of Pupils Inspected	Physical Condition of pupils inspected (nutrition)		Pupils found to require treatment (excluding dental diseases and infestation with vermin)		
		Satisfactory	Un-satisfactory	For defective vision (excluding squint)	For any other condition recorded at Part II	Total Individual pupils
		No.	No.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1962 and later ..	20	20	—	—	—	—
1961	1,885	1,885	—	20	74	94
1960	2,551	2,551	—	33	64	97
1959	423	423	—	6	15	21
1958	203	203	—	6	2	8
1957	150	150	—	9	6	15
1956	130	130	—	3	5	8
1955	699	699	—	34	27	59
1954	1,756	1,756	—	57	71	128
1953	838	838	—	32	36	68
1952	1,574	1,574	—	83	66	149
1951 and earlier ..	1,867	1,867	—	102	46	148
TOTAL ..	12,096	12,096	—	385	412	795

NOTE: (i) Routine medical examinations are normally carried out on entry to school, at 11 years of age and again at 14 years.

(ii) Columns 5, 6 and 7, relate to individual pupils and not to defects. Consequently the total in column (7) is not necessarily the sum of columns (5) and (6).

(B) OTHER INSPECTIONS

Special Inspections	1,603
Re-inspections	10,535
	12,138*

*In addition to those inspected a total of 2,908 pupils in 7/8 year old groups, were given Vision tests. Of this total, 40 were recommended for treatment and 148 for observation.

Also approximately 1,000 visits per annum are made by School Medical Officers to the homes of handicapped pupils for special examination, re-examination and parent guidance purposes, etc.

(C) INFESTATION WITH VERMIN

(1) Total number of examinations in the schools by the School Nurses or other authorised persons ..	101,252
(2) Total number of individual pupils found to be infested	1,048
(3) Number of individual pupils in respect of whom cleansing notices were issued (Section 54(2), Education Act, 1944)	32
(4) Number of individual pupils in respect of whom cleansing orders were issued (Section 54(3), Education Act, 1944)	14

TABLE II

RETURN OF DEFECTS FOUND BY MEDICAL INSPECTIONS IN THE YEAR ENDED 31st DECEMBER, 1966
PERIODIC AND SPECIAL INSPECTIONS

Defect Code No.	Defect or Disease	Entrants		Leavers		Others		Total		Special inspections	
		Requiring:		Requiring:		Requiring:		Requiring:		Requiring:	
		Treatment	Observation	Treatment	Observation	Treatment	Observation	Treatment	Observation	Treatment	Observation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
4	Skin	18	161	38	108	47	132	103	401	52	26
5	Eyes (*a*) Vision	53	587	185	465	147	537	385	1,589	12	76
	(*b*) Squint	23	135	10	38	21	78	54	251	5	24
	(*c*) Other	5	41	—	20	2	37	7	98	—	7
6	Ears (*a*) Hearing	3	242	8	57	5	136	16	435	1	48
	(*b*) Otitis Media ..	5	223	3	44	7	70	15	337	—	20
	(*c*) Other	3	52	—	14	—	25	3	91	—	10
7	Nose or Throat	23	716	13	131	5	286	41	1,133	3	76
8	Speech	7	125	2	19	1	38	10	182	5	32
9	Lymphatic Glands ..	1	369	1	22	—	87	2	478	—	31
10	Heart	1	72	—	47	1	45	2	164	—	7
11	Lungs	9	250	—	54	9	115	18	419	1	18
12	Development:										
	(*a*) Hernia	7	25	5	3	4	9	16	37	—	—
	(*b*) Other	6	118	6	34	1	86	13	238	—	7
13	Orthopaedic:										
	(*a*) Posture ..	—	21	1	25	1	23	2	69	—	11
	(*b*) Feet	11	227	8	100	16	156	35	483	2	30
	(*c*) Other	5	152	4	80	16	93	25	325	2	30
14	Nervous System:										
	(*a*) Epilepsy	1	22	—	9	—	18	1	49	2	4
	(*b*) Other	—	24	1	21	—	24	1	69	—	7
15	Psychological:										
	(*a*) Development ..	—	75	3	41	8	69	11	185	—	113
	(*b*) Stability	2	174	1	36	2	111	5	321	—	90
16	Abdomen	4	79	1	33	2	88	7	200	2	13
17	Other	4	45	7	59	7	51	18	155	2	11

TABLE III

(A) EYE DISEASES, DEFECTIVE VISION AND SQUINT

	Number of cases dealt with
External and other, excluding errors of refraction and squint	10
Errors of refraction (including squint)	4,044
TOTAL ..	4,054
Number of pupils for whom spectacles were prescribed	3,936

(B) DISEASES AND DEFECTS OF EAR, NOSE AND THROAT

	Number of cases dealt with
Received operative treatment:	
(*a*) for diseases of the ear	20
(*b*) for adenoids and chronic tonsillitis ..	432
(*c*) for other nose and throat conditions ..	34
Received other forms of treatment	1
TOTAL ..	487
Total number of pupils in schools who are known to have been provided with hearing aids: (*a*) in 1966	27
(*b*) in previous years	151

(C) ORTHOPAEDIC AND POSTURAL DEFECTS

	Number of cases dealt with
Number of pupils known to have been treated at clinics or out-patients departments ..	239
Number of pupils treated at school for postural defects	22
TOTAL ..	261

(D) DISEASES OF THE SKIN (excluding Uncleanliness, for which see Part C of Table I)

	Number of defects treated or under treatment during year
Ringworm: (i) Scalp	2
(ii) Body	11
Scabies	6
Impetigo	18
Other skin diseases	42
TOTAL	79

(E) CHILD GUIDANCE TREATMENT

Number of pupils treated at Child Guidance Clinics under arrangements made by the Authority	455

(F) SPEECH THERAPY

Number of pupils treated by Speech Therapists	273

(G) OTHER TREATMENT GIVEN

	Number of cases dealt with
(*a*) Miscellaneous Minor Ailments	65
(*b*) Pupils who received convalescent treatment under School Health Service arrangements	10
(*c*) Pupils who received B.C.G. Vaccination	3,034
(*d*) Other treatment given:	
Appendicitis	4
Asthma	21
Bronchitis	8
Cardiac Conditions	12
Diabetes	4
Epilepsy	7
Hernia	10
Nephritis	3
Pneumonia	2
Rheumatism / Rheumatic Fever	2
Tubercular Conditions	9
Miscellaneous	190
TOTAL (*a*) — (*d*)	3,381

Walker, Printer, Shrewsbury